

ABSTRACT

2 A single wheel radial flow gas turbine having a single rotating wheel and a stationary
3 shroud. The wheel has a radial flow compressor section at its inner portion and a turbine
4 section at its outer portion. The compressor and turbine sections are located on the same side
5 of the wheel, which is directly or indirectly coupled to a generator for absorbing the excess
6 rotational energy. A radial flow combustor section and a nozzle section are mounted on the
7 stationary shroud. Air flows radially through the compressor, combustor, nozzle, and turbine
8 sections; there is essentially no axial flow component. Optionally, water may be injected
9 radially downstream from the fuel injectors for power augmentation, NO_x reduction, and
10 metal temperature moderation.